

contemporaneously herewith, kindly amend the above-entitled application as follows, no new matter is added:

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In The Claims:

Claim 1 (Currently Amended). Water-soluble supramolecular self-assemblies of a polyelectrolyte comprising:

at least one polyelectrolyte compound selected from the group consisting of:

a. diblock copolymers including ionizable units, or ~~permanently~~ charged units or mixtures of ionizable and ~~permanently~~ charged units, **in combination with non-ionic hydrophobic units,**

*A1*  
b. multiblock copolymers including ionizable units, ~~permanently~~ charged units or mixtures of ionizable and ~~permanently~~ charged units, **in combination with non-ionic hydrophobic units** and

c. random copolymers with grafted hydrophilic and essentially non-ionic oligomers or polymers, said random copolymers including ionizable units, ~~permanently~~ charged units or mixtures of ionizable and ~~permanently~~ charged units, **in combination with non-ionic hydrophobic units;**

wherein a polyelectrolyte segment forms a core of the assembly and chemically bears non-ionic hydrophobic repeating units.

Claim 2 (Currently Amended). The supramolecular self-assemblies of claim 1, wherein:

1  
said diblock copolymers include at least two blocks, one of which is hydrophilic and ~~essentially~~ uncharged and another of which contains at least one repeating unit selected from ~~the group consisting of~~ ionizable or ~~permanently~~ charged ~~repeating~~ units in combination with ~~essentially~~ **non-ionic** hydrophobic [monomers] **units**.

Claim 3 (Currently Amended). The supramolecular self-assemblies of claim 2, wherein:

said ionizable units are repeating units that can be transformed from a non-ionic to a charged state ~~via an external stimulus~~.

Claim 4 (Currently Amended). The supramolecular self-assemblies of claim 3 wherein:

~~said external stimulus is selected from the group~~

~~consisting of transformation to a charged state is caused by a~~  
change in pH or conduction of a chemical reaction.

Claim 5(Canceled).

Claim 6(Currently Amended). The supramolecular self-assemblies of claim 2, wherein:

said ionizable or ~~permanently~~ charged block, bearing hydrophobic repeating units, is synthesized from at least one hydrophobic compound selected from the group consisting of vinyl monomers, vinyl oligomers, and vinyl polymers.

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Claim 7(Currently Amended). The supramolecular self-assemblies of claim 6, wherein;

said hydrophobic compound is at least one compound selected from the group consisting of acrylates, acrylamides, alkylacrylates, alkylacrylamides, arylacrylates and arylacrylamides ~~derivatives~~.

Claim 8(Currently Amended). The supramolecular self-assemblies of claim 7, wherein:

said ~~alkyl or aryl derivatives~~ hydrophobic compound

includes at least one aliphatic or aromatic moiety selected from the group consisting of ~~acrylates, acrylamides,~~ methacrylates and methacrylamides **derivatives**.

Claim 9. The supramolecular self-assemblies of claim 6, wherein:

said hydrophobic compound is at least one vinyl-terminated biodegradable polyester.

Claim 10 (Canceled).

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Claim 11 (Currently Amended). The supramolecular self-assemblies of claim 2, wherein:

said ionizable units include at least one compound selected from the group consisting of alkylacrylic acids **derivatives**, (aminoalkyl)acrylates ~~derivatives~~, and (aminoalkyl)alkylacrylates ~~derivatives~~.

Claim 12. The supramolecular self-assemblies of claim 2, wherein:

said hydrophilic block is synthesized from at least one hydrophilic compound selected from vinyl monomers, vinyl

oligomers and vinyl polymers.

Claim 13 (Currently Amended). The supramolecular self-assemblies of claim 12, wherein:

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said hydrophilic compound is at least one compound selected from the group consisting of acrylates ~~derivatives~~, acrylamides ~~derivatives~~, alkylacrylates ~~derivatives~~, alkylacrylamides, and N-vinyl-2-pyrrolidones ~~derivatives~~.

Claim 14. The supramolecular self-assemblies of claim 2, wherein:

said hydrophilic block originates from a macroinitiator based on poly(ethylene glycol) or poly(N-vinyl-2-pyrrolidone).

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Claim 19 (New). Water-soluble supramolecular self-assemblies of a polyelectrolyte comprising:

A2  
at least one polyelectrolyte compound selected from the group consisting of

a. diblock copolymers including at least two blocks, one of which is hydrophilic and uncharged and another of which contains at least one repeating unit selected from ionizable or charged units or mixtures of ionizable and charged units in combination

with non-ionic hydrophobic units ionizable units, wherein said ionizable or charged block, bearing hydrophobic repeating units, is synthesized from at least one hydrophobic compound selected from the group consisting of vinyl monomers, vinyl oligomers, and vinyl polymers, and said hydrophobic compound is at least one vinyl-terminated biodegradable polyester selected from the group consisting of vinyl-terminated poly(lactide) and vinyl-terminated poly( $\epsilon$ -caprolactone);

b. multiblock copolymers including ionizable units, charged units or mixtures of ionizable and charged units, in combination with non-ionic hydrophobic units and

c. random copolymers with grafted hydrophilic and non-ionic oligomers or polymers, said random copolymers including ionizable units, charged units or mixtures of ionizable and charged units, in combination with non-ionic hydrophobic units;

wherein a polyelectrolyte segment forms a core of the assembly and chemically bears non-ionic hydrophobic repeating units.

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